854 278 medications were taken internally, sometimes being painted on the tongue with a feather; but two preparations were applied over the abdomen. Some of the medications were described as "stomach medicine" or "to prevent flatulence." Five different kinds of proprietary medicine were given to 18 infants. In 13 instances, the medicine given was clearly homemade and included as major ingredients items such as flattery fruit, (3)luug (1)yauau; cobra oil; horseshoe crab; and buffalo skin. The nature of the medicine, whether homemade or proprietary, was not clear in 8 instances. Usually medicine for infants was mixed with honey, but in 2 cases, alcoholic liquor was used as it customarily was for the mother.

Six newborn infants in this series were given no medicine. One of these was born at the Health Center. One of the other 2 infants delivered at the Health Center was given homemade medicine later, and no information was obtained on the third. Eye prophylaxis[1] was probably routine at the Health Center, as, in 2 of the 3 cases delivered there, informants knew that drops had been put in the infant's eyes. Traditional midwives, however, did nothing of this sort.

Water for Drinking and Bathing.

853 312 For the newborn infant as well as for the mother, water for drinking and bathing was boiled and was usually used while hot, often being kept warm in a vacuum bottle. Either rain water or canal water might be used depending on what was available at a given season. The water was dribbled from an adult's fingers into the infant's mouth. When the mother was no longer lying by the fire, boiled water was not considered essential for the infant. Nevertheless, over half the infants seen from this time up to 3 months of age were being given boiled water to drink. After 6 months of age this was rare.

853 855 312 In one instance, during the time when a younger sibling received boiled canal water, a 21-month old child was given boiled water also. At the time of a later visit both of these children were drinking unboiled canal water. In another case an orphaned boy's formula was made up with boiled water, although

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[744] [751] [731] 1. Vaccination for smallpox was the only modern preventive treatment which we knew to be used in Bang Chan in the absence of an epidemic. Since a severe epidemic of smallpox with many deaths ten years previously, health officers came to the Bang Chan elementary school once a year to vaccinate children, and other residents of the community could be vaccinated at this time. Four of the young children whom we visited periodically were vaccinated, at 4 months, 8 months, 1 and 2 years of age, respectively.

4:Phillips E-4,5 (1956-1957) 1966
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essentials not atypical of the region. Instead of villages being organized administratively on the basis of natural social groupings and demarcations—that is, social centers and groups with which people feel a primary identification, in Bang Chan's case the local Buddhist monastery and government primary school—so that governmental and social units are isomorphic, they are gerrymandered into highly arbitrary administrative units. Thus the village of Bang Chan is comprised of seven *muubaan* or hamlets, at the head of which are seven hamlet headmen; these hamlets are located in two different *tambon*, or communes (four in one commune, three in the other) headed by two commune headmen, neither of whom lives in Bang Chan; the two communes are located in two different districts headed by two different district officers and their staffs; the two districts fortunately are in a single province, Phranakhoon, the same administrative unit in which the metropolis of Bangkok is located. Yet the people who reside in these varying hamlets located in different communes and districts all perceive themselves as living in the single village of Bang Chan. The fundamental organizational problem here is that since the sources and lines of governmental authority do not follow the lines of the natural Bang Chan community, jurisdictional conflicts and confusions arise to threaten the effectiveness of those community-wide programs that occasionally may be initiated. For example, during a diphtheria immunization campaign in the village (Hanks and Hanks 1955), the public health officer from one of the district offices was reluctant to immunize all the children of Bang Chan on the grounds that some of them came from hamlets outside his district's jurisdiction; he yielded, as the Hankses note, only when a perceptive villager pointed out that if germs knew no boundaries why should he?

Not all villages of the Central region have such real or potential administrative difficulties. (And Bang Chan does not have them too frequently either, principally because the government does not initiate too many community service programs.) However, the basic organizational principle which admits them—that houses are grouped together as administrative "villages" on the basis of conceptual neatness rather than socially functional criteria—is a common feature of the administrative structure of the Central Plain.

The foregoing account describes some basic culture patterns which Bang Chan shares with other villages of either the region or the nation. In addition to these broader patterns, Bang Chan has certain traits which inevitably refer to local village conditions and contingencies. For example, the most active and viable social unit in Bang Chan beyond the familial level is the order of Buddhist monks associated with the monastery. It is the only organization within the village that has been successful in mobilizing community activity (Sharp *et al.* 1953), although much of this activity has

14 observed in 9% of the school children 7 to 14 years of age who were examined, and in about 6% of the males and 25% of the females over 15 years of age. Of 337 persons examined, however, 2 only, one child and one adult female, were found to have hemoglobin values under 9.75 g per 100 ml.

744 Modern sanitation was practically unknown in Bang Chan.
514 Few families had covered pit latrines or made any effort to
164 cover excreta. Intestinal parasitism was common. Garbage
364 might be fed to animals, but was frequently thrown into the canal or elsewhere about the compound. Provisions for protecting foods from contamination were meager.

When rain water was available, it was used for drinking, but several months each year water from the canals or fish ponds was used without prior treatment. For washing vegetables, cooking and washing dishes, canal and pond water was used throughout the year.

744 A few changes in sanitary practices, if they could be
751 brought about, might reduce some kinds of illness substantially. For example, if the villagers would adopt the practice of boiling pond or canal water whenever it is to be used for drinking, contamination from this source would be materially reduced.

Use of boiled water for bathing babies and all persons with abrasions or open wounds would probably reduce the incidence of skin infections, and enable those which do occur to heal more quickly.

Infantile tetanus could be largely if not entirely prevented if the local midwives were taught to use sterile scissors for cutting the cord, and to avoid contact of the cord with soil.

758 Modern medicine will probably not be readily or
121 generally available to a majority of the residents of Bang Chan for many years to come. The first step toward better health in a village such as Bang Chan appears to be to teach the people, through their local leaders and practitioners, to adopt improved health practices. To be effective, such teaching must be based not only on a knowledge of what the people do, but on an understanding of the way they think and feel about customary practices.

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751 vaccinated but among school children the percentage is very high. During the survey period a health officer came to the Bang Chan elementary school to vaccinate children; and at that time at least one nearby resident, a school teacher's wife, brought her infant for vaccination.

164 Illnesses probably, in most cases certainly, of infectious origin, which were mentioned in the field notes, include the following, which are listed roughly in the order of frequency: skin disorders such as abscesses and boils, fever, respiratory disorders including colds and influenza, tuberculosis, "upset stomach," measles and diphtheria. Two cases of diphtheria with one death, occurred while the survey was in [744] progress. At this time health authorities came to the village to inoculate the children on a voluntary basis (Hanks et al. 1955). As already noted, malaria and typhoid (one case each), were mentioned as occurring during the year previous to the inquiry in Hamlet KY-7 (Hanks, 1954).

[759] [743] A number of references were made to history of cholera, smallpox and malaria, but these did not appear to be current threats. Two cases of severe diarrhea were called "cholera" but one was on the way to recovery the next day. The traditional practitioner who was asked to treat the other, urged that she be taken to the hospital, and himself accompanied the patient and family members. At the hospital, they were told that members of the family and neighbors should "get vaccinated and have their toilet covered."[1] No further mention of this case is made in the field notes, hence the correct diagnosis is not known to us.

Since a modern doctor was frequently not seen, diagnosis of disease was often uncertain. More often, major symptoms were described or the disorder was given a local name, for which there is no good English equivalent, such as various kinds of *saang* and *lom*.

Non-contagious disorders. - Among current non-contagious disorders mentioned in the field notes, in replies to questions on surveys, and in some cases observed by the physician, were the following, listed roughly in order of frequency: menstrual disorders, headaches, beriberi, cancer, asthma, eczema, nephritis, and rheumatism.

Accidents. - Accidents which were recorded in field notes include bites of dogs, spiders, leeches and snakes, falls from buffaloes and down ladders, burns, cuts, drowning and poison from drinking kerosene. Among the school children examined,

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1. Field notes, S.S., April 29, 1954.

251 One family stored cooked food in a basket which was hung from the ceiling. One homemaker frequently covered such foods with a basket, and in one instance a homemaker, who usually took no precautions to protect cooked foods, used a basin to cover food left on a table.

271 312 Source and Treatment of Water For Drinking and Culinary Purposes. - From the time the dietary survey was begun, on May 26, 1953, through January 18, 1954, all families used rain water for drinking.

Of the 14 survey days, spaced at about weekly intervals, between January 28, 1954 through May 8, 1954, canal water was used for drinking on 7 days, water from fish ponds on 4, and rain water on 3 days. No distinction was made in source of drinking water for children and adults.

312 744 [846] All families used canal water for washing vegetables, cooking, and washing dishes, on the survey days from May 26, 1953 through March 18, 1954. On the 6 survey days between March 24 and May 8, 1954, 4 families used water from the fish pond for these purposes. In no instance was the water treated in any way before being used, although alum is known to be used, at times, in the village, to settle or clear water, and boiled water is given mothers and infants to drink during the post partum rest period.

514 Disposal of Excreta. - Of 30 families from whom information was obtained, 20 had pits for toilet use, only one of which was equipped with a cover. One other family had a flush latrine. Of the 8 families who had no special place which was used for toilet purposes, 4 reported that family members urinated on the compound, 3 that they used the fields, and 1 that either compound or field might be used for urination. One reported that the compound was used for defecation as well as urination; the remaining 7 said they went to the field to defecate.

Six families with pit latrines covered feces in some way: 3 used earth, 2 ashes, and 1 either earth or ash. A majority of those who used either an uncovered pit or had no designated place, reported that no attempt was made to cover feces. From six families, no information was obtained on this point. Various materials were mentioned as being used in the manner in which western peoples use toilet paper. Cocoanut husks were mentioned most frequently (25 times), and other materials in this order: paper (newspaper 9 times, straw paper once), wood (4 times) and water (3 times).

From the information available, custom and convenience rather than sanitary considerations appear to determine practices that are followed. If improved practices are